



Should we provide a guarantee that no child will be brain-damaged by malnutrition in Africa if money can prevent it?'

Simon Maxwell

Child malnutrition is a huge problem in Africa, and is not as visible as it should be in the report of the Africa Commission. It is not an exaggeration to say that a third of Africa's children are brain-damaged as a result of malnutrition, with major long-term effects on learning, health and productivity. Malnutrition can be dealt with, for less than \$US 20 per child per year. This has always seemed like quite a lot of money, but the comparison with HIV/AIDS should inspire us to be more ambitious. At a recent meeting, the Director of the Global Fund, Richard Feachem, estimated that treatment for AIDS would cost up to \$US 500 per person per year, and said the Fund would need \$US 7-8 billion per year for the foreseeable future. These are extraordinary numbers, but the Global Fund is on track to meet its targets. There should certainly be programmes to fight HIV/AIDS – and there should be similar urgency about child nutrition. Children have a right not to be brain damaged by malnutrition. But, in addition, not tackling malnutrition makes achieving the MDGs simply impossible: malnutrition is an indicator for the poverty MDG, but improving nutrition status is also an absolute requirement if the health and education MDGs are to be met.

The facts on malnutrition

We sometimes forget how widespread is malnutrition. The best indicator is the level of stunting, which measures children who fail to grow. For the developing world as a whole, over a quarter of children under five years old are severely stunted. In Africa, the figure is over a third. In Eastern Africa, including Ethiopia, it is over 44%. In Ethiopia, the figure is 51%. These are minimum estimates, derived from a high threshold. In 2000, the James Commission (an international commission on nutrition) concluded that the official numbers were the tip of the iceberg: many more children are affected, but less severely. Food or food security shocks make the situation much worse in some years.

There are other indicators, reflecting maternal under-nutrition or micronutrient deficiency. A quarter of children in the developing world are born with birthweight below the critical minimum of 2.5 kg. Over a third of school-age children

are affected by iodine deficiency. In Africa, over half are anaemic.

In some regions, the trends are improving, sometimes quite fast. In East Asia, the prevalence of stunting has fallen by two thirds since 1990, and now stands at 10%. In Latin America, it has nearly halved. In sub-Saharan Africa, however, the prevalence has barely changed and the numbers have increased. There are 20% more stunted children in Africa now than there were in 1990.

The effect of malnutrition

Malnutrition is corrosive. It increases the probability of illness and of death: half of all child deaths in Africa are associated with malnutrition, and those children that survive to adulthood have an increased risk of heart disease, diabetes and renal damage. It affects growth and has a direct impact on labour productivity: every 1% increase in height is associated with a 2% increase in wages; the economic costs of iron deficiency anaemia are high.

What is less well known is that malnutrition has a significant impact on brain development. There is now evidence to show that poor nutrition affects cognitive development, psychomotor development, fine motor skills, skill acquisition, activity level, and social interaction. These effects result both from shortage of calories and from micronutrient deficiency. As just one example, iodine deficiency affects the development of the central nervous system and leads to a loss on average of 13.5 IQ points. The consequences of malnutrition are seen in school performance. Malnourished children start school later, progress less rapidly, and achieve worse results.

The James Commission made a telling point. It estimated that by 2020, even after allowing for improvement at current rates, there would be one billion children in the world growing up with impaired mental development.

Cost-effective interventions

There is a huge variety of possible interventions, ranging from

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education and food programmes to the iodisation of salt and the supply of Vitamin A. Growth is part of the solution, but rising incomes on their own do not eliminate malnutrition.

The critical age for intervention is in the womb and up to three. By the time children enter school, it is usually too late to reverse the damage.

The professional consensus is that food supplementation is a last resort, and that where food is needed, it should if possible be procured locally. This is not a plea for more food aid.

A popular 'best-bet' programme costs \$US 5 – 15 per child per year, without food. It involves community development workers in a ratio of 1 for every 20 families, concentrating on promotion of breast-feeding, better weaning practices, better child care and women's education. Such programmes can reduce the prevalence of underweight by 1-3 percentage points per annum – and have done so in countries like Thailand and Honduras.

Other programmes target low birth weight, sometimes through food supplements for mothers, or micronutrient deficiency, through diet change or supplementation. The effects can be dramatic. For example, Vitamin A supplementation in areas affected by widespread deficiency not only reduces night blindness and improves learning ability, but also improves resistance to infection and thereby cuts child mortality by close to 25%.

What works best will vary from place to place. However, the bottom line is that nutrition interventions are highly cost-effective.

What next?

The Africa Commission proposes expenditure of \$US 20bn a year on health, of which half is to implement a basic package for the major communicable diseases and for early childhood and maternal illnesses. To make under-nutrition more visible in this package, it is tempting to propose a new global fund, with the reach and ambition of the current Global Fund. This would be a bad idea. It would multiply the problems of excessive ear-marking and further cut across rational budget processes in both donor and recipient countries.

A second option would be to charge the Global Fund with the additional responsibility of tackling under-nutrition: a Global Fund for malaria, HIV/AIDS, TB, and under-nutrition. This would stretch the Fund, but would have the advantage of requiring a careful analysis of spending priorities.

A third option is to advocate for more attention to under-nutrition in PRSPs and in donor programmes. The MDGs provide an adequate framework, but a push is needed to move nutrition up the agenda. Should there be an EU Presidency or G8 initiative?

We have said that no child will be unable to access schooling because education systems are under-funded. Should we not also say that no child will be subject to brain-damage caused by malnutrition if more money can prevent it?

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